

Inventor: BOWE ET AL
Serial No. 10/566,657
U.S. National Stage Application of
International Application No. PCT/GB2004/003280
Attention: DO/EO/US

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Original) A process for coating a metal substrate with a layer of ceramic suitable as a support for a Fischer-Tropsch catalyst, the method comprising forming a slurry containing dispersible alumina and particulate alumina, the particulate alumina having a particle size greater than 1 μ m, and the proportion of dispersible alumina being between 5% and 35% by weight of the total alumina, and spraying droplets of the slurry onto a hot metal substrate, the substrate being at a temperature between 500° and 750° C.
2. (Original) A process as claimed in claim 1 wherein the droplets comprise at least 15% solid material.
3. (Currently Amended) A process as claimed in claim 1 ~~or claim 2~~ wherein the metal substrate comprises an aluminium-bearing ferritic steel.
4. (Currently Amended) A process as claimed in claim 1 ~~any one of the preceding claims~~ wherein the ceramic layer also incorporates a stabiliser.
5. (Currently Amended) A process as claimed in claim 1 ~~any one of the preceding claims~~ wherein the coated substrate is subsequently calcined.
6. (Currently Amended) A process as claimed in claim 1 ~~any one of the preceding claims~~ wherein the layer is built up by successively spraying droplets of slurries of different compositions.

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7. (Original) A process as claimed in claim 6 wherein the compositions are such that the layer increases in porosity towards its exposed surface.

8. (Currently Amended) A process of making a catalyst, comprising coating a metal substrate with a layer of porous ceramic by a process as claimed in claim 1 ~~any one of the preceding claims~~, and incorporating catalyst material into the ceramic layer.

9. (Original) A process as claimed in claim 8 wherein the catalyst material is a catalytic metal, and the catalytic metal is incorporated by contacting the ceramic layer with a solution of a salt of the metal in a solvent comprising an organic liquid whose surface tension and viscosity are lower than those of water.

10. (Currently Amended) A process as claimed in claim 8 ~~or claim 9~~ wherein the ceramic layer incorporates a catalytic metal, and is then coated with wax to protect it from the atmosphere.

11. (Currently Amended) A catalyst made by a process as claimed in claim 8 ~~any one of claims 8 to 10~~.